

Appl. No. : 10/021,567
Filed : December 12, 2001

REMARKS

In response to the Office Action mailed December 17, 2003, Applicant has amended the application as above. No new matter is added by the amendments as discussed below. Applicant respectfully requests the entry of the amendment and reconsideration of the application in view of the amendments and the remarks set forth below.

Discussion of Claim Amendments

Claims 15 and 16 have been cancelled. Claims 17 and 18 have been amended. New Claim 29 has been added. Claims 1-10 have been previously cancelled. Claims 11-14 have been allowed over the prior art of record by the Examiner. Upon the entry of the amendments, Claims 11-14 and 17-28 are pending in this application. The amendments to Claim 17 and 18 are supported, for example, by the specification at page 6, lines 12-17, and by Sample No. 1 of the invention on page 13 of the specification. Therefore, the amendments to the claims do not introduce any new matter. Entry of the amendments is respectfully requested.

Discussion of Claim Rejections Under 35 U.S.C. § 112, ¶ 1

The Examiner has rejected Claims 17 and 19 under 35 U.S.C. § 112, first paragraph as containing subject matter which was not described in the specification. The Examiner asserts that there is no adequate description in the disclosure for the claim limitation "a total amount of Be, Sr, Mg, Ti and V: 0.003 to 0.05 wt%" in Claim 17. Applicant disagrees, because on page 6, line 13 of the specification, it states that the recited elements should be present at 0.003 to 0.05 wt% in total. Claim 17 has been amended to be limited to Sr as in Sample No. 1 of the invention, which is described on page 13 of the specification, so it is believed that in any event the rejection is no longer applicable.

The Examiner also asserts that there is no adequate description in the disclosure for the claim limitation "the amount of Cu in the alloy being over 0.05 to 0.4 wt%" in Claim 19. In reply, Applicant has deleted the term "over" from the limitation. Now, the limitation "Cu: 0.05 to 0.4 wt%" is clearly supported by the original disclosure. Withdrawal of the rejection is respectfully requested.

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Discussion of Rejection of Claims under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 15, 23-24 and 26-27 under 35 U.S.C. § 103(a) as being unpatentable over Sato, et al (U.S. Patent No. 6,239,373) in view of JP 7-207392 (Hereinafter "JP '392").

The Examiner has also rejected Claims 18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Sato, et al in view of Fortin, et al (U.S. Patent No. 4,121,951).

Further, the Examiner has rejected Claim 19 under 35 U.S.C. § 103(a) as being unpatentable over Sato, et al in view of Matsuoka, et al (U.S. Patent Application Publication No. 2003/0143102).

Rationale of 35 U.S.C. § 103

In order to provide a *prima facie* showing of obviousness under 35 U.S.C. § 103, all the claim limitations must be taught or suggested by the prior art. *See, e.g., In re Royka*, 490 F. 2d 981, 180 U.S.P.Q. 580 (CCPA 1974). MPEP 2143.03. In the case of the presently claimed invention, the prior art neither teaches or suggests all of the claim limitations as discussed below.

Discussion of Patentability of Independent Claim 15

Independent Claim 15 is cancelled with this amendment.

Discussion of Patentability of Independent Claim 17

The Examiner stated in the Office Action that the patentability of Claim 17 over the prior art was not evaluated. As discussed above, it is believed that the rejection of this claim under 35 U.S.C. Section 112 has been overcome.

Claim 17 as amended is directed to a power cable made from an alloy "consisting of" particular recited amounts of Si, Fe, Zr, and Sr as set forth in Claim 17. This is the formulation of Sample No. 1 of the Invention on page 13 of the specification. None of the prior art references teach or suggest the claimed cable. JP '392 requires the presence of Ti. Fortin does not describe the addition of Sr. It is respectfully submitted that Claim 17 is allowable.

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Discussion of Patentability of Independent Claim 18

Independent Claim 18 recites, among other things, a stranded wire formed of a plurality of high conductive Al alloy strands each consisting essentially of: 0.05 to 0.4 wt. % of Zr, 0.05 to 0.2 wt. % of Fe, 0.05 to 0.2 wt. % of Si and 0.003 to 0.05 wt.% of V. Neither Sato nor Fortin teaches or suggests the above claim limitations. Sato does not disclose any of the elements: Zr, Fe, Si and V (The Examiner acknowledged as such in the Office Action).

The aluminum alloy of Fortin is specified as having a maximum amount of Si and V (0.1% and 0.005%, respectively) as impurities (column 3, line 31, 35). However, Fortin does not teach or suggest an aluminum alloy “consisting of” the specific amount of Si (0.05 to 0.2 wt. %) and V (0.003 to 0.05 wt.%) as is now recited in independent Claim 18. Si and V of Fortin are added in the aluminum alloy as impurities and the maximum amounts of Si and V are 0.1% and 0.005%, respectively. In addition, Fortin discloses that it is particularly important to minimize the content of the impurities such as Ti, V, Mn and Cr owing to their known adverse effect on conductivity (column 3, lines 11-13). Furthermore, Fortin does not provide any specific example alloy having an amount of Si or V which falls within the claimed range. This may be expected because Fortin discloses eliminating these elements as much as possible. Thus, in Fortin the amounts of Si and V should be minimized, preferably close to zero in order to obtain the object of the Fortin invention. However, the aluminum alloy of the claimed invention must include the recited specific amount of Si and V. Therefore, Applicant respectfully submits that Fortin does not teach or suggest the claim limitation “0.05 to 0.2 wt. % of Si and 0.003 to 0.05 wt.% of V.” Thus, Claim 18 is allowable over the prior art of record.

Discussion of Patentability of Independent Claim 19

Claim 19 was rejected as unpatentable over Sato in view of Matsuoka et al. The earliest possible effective date for the Matsuoka reference is August 13, 2001, which is the filing date of the provisional application to which the Matsuoka application claims priority.

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In a response dated December 3, 2002, the applicant filed a Declaration under 37 C.F.R. 1.131 establishing a date of invention at least as early as June 16, 1999, which is the filing date of the Japanese Application 11-169411 that corresponds to the present application.

Accordingly, Matsuoka does not qualify as a prior art reference to this application. It is respectfully requested that this rejection be reconsidered and withdrawn.

Discussion of Patentability of New Claim 29

New claim 29 is a combination of cancelled Claims 15 and 16. In the Office Action, the Examiner rejected Claim 16 based on obviousness type double patenting. It is respectfully submitted that with the filing of the attached terminal disclaimer, the rejection has been overcome, and that new Claim 29 is in condition for allowance.

Discussion of Patentability of Dependent Claims

Dependent Claims 20, 23-24 and 26-27 depend from their base Claim 17, 18, or 19 and further define additional technical features of the present invention. In view of the patentability of their base claims, and in further view of the additional technical features, the dependent claims are patentable over the cited references.

The Examiner has rejected Claim 21, and Claims 25 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Sato in view of JP '392, and further in view of either Suzuki, et al (U.S. Patent No. 5,532,910) or Nixon (U.S. Patent No. 4,408,089). The Examiner has also rejected Claim 22 under 35 U.S.C. § 103(a) as being unpatentable over Sato in view of Matsuoka, and further in view of Suzuki. However, since neither Suzuki nor Nixon cures the deficiency of Sato, JP '392 and Matsuoka, base Claims 17 and 19 are allowable over either Suzuki or Nixon. Thus, since Claims 21-22, 25 and 28 depend from Claim 17 or 19, the dependent claims are also allowable for at least the same reason.

Discussion of Nonstatutory Double Patenting Claim Rejections

Claims 16 and 18 were rejected under the judicially created doctrine of obviousness-type double patenting over Claim 1 of U.S. Patent No. 6,573,454 (Fujiwara) in view of Fortin. A terminal disclaimer is attached to overcome this rejection.

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CONCLUSION

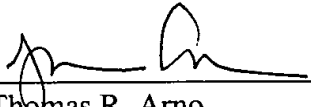
Applicant has endeavored to address all of the Examiner's concerns as expressed in the outstanding Office Action. Accordingly, amendments to the claims, the reasons therefor and arguments in support of the patentability of the pending claims are presented above. Any claim amendments which are not specifically discussed in the above remarks are not made for patentability purposes, and Applicant submits that the claims would satisfy the statutory requirements for patentability without the entry of such amendments. Rather, these amendments have only been made to increase claim readability, to improve grammar, and to reduce the time and effort required of those in the art to clearly understand the scope of the claim language.

In light of the above amendments and remarks, reconsideration and withdrawal of the outstanding rejections is respectfully requested. If the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, the Examiner is respectfully requested to initiate the same with the undersigned.

Respectfully submitted,

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Dated: 4/12/04

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